# IN THE UNITED STATES PATENT & TRADEMARK OFFICE

# BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of

SEP 1 1 2006

: Examiner:

KENNETH P. GLYNN

: Gerald Gauthier

JEROME R. MAHONEY

: Art Unit: 2645

Serial No. 10/696,660

: Attorney Docket No.

Filing Date: October 29, 2003

: IVC-105C

For: VOICE ACTIVATED, VOICE RESPONSIVE PRODUCT LOCATOR SYSTEM, INCLUDING PRODUCT LOCATION METHOD UTILIZING PRODUCT BAR CODE AND AISLE-SITUATED, AISLE-IDENTIFYING BAR CODE

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 (Appeal Brief)

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Kenheth P. Glynn

KPG/LBH
EM RRR EQ 745722501 US
Docket No. IVC-105C
cc: Jerome R. Mahoney
Alan Burnett
Patrik Edenholm

# 09-11-06



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# SUBMISSION OF SUBSTITUTE APPEAL BRIEF AND PETITION FOR EXTENTION OF TIME WITH FEE

This filing is in response to the Examiner's Notification of Non-Compliance Appeal Brief dated June 8, 2006. The undersigned thanks Examiner Gerald Gauthier for a recent brief telephone discussion. A two month Petition for Extension of Time with the appropriate fee is submitted herewith, along with four copies of the Substitute Appeal Brief.

The Substitute Appeal Brief now specifically includes three additional separate headings for the 35 USC 112 rejections in this matter in Section VI. Additionally, Section VII has three new corresponding sections in the Argument.

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It is respectfully requested that the Substitute Appeal Brief is in full compliance and a favorable review is earnestly requested.

Respectfully submitted,

Dated: 7 September 2006

KPG/LBH EM RRR EQ 745722501 US Docket No. IVC-105C cc: Jerry Mahoney Alan Burnett Patrik Edenholm Reg. No. 26,893
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# SUBSTITUTE APPEAL BRIEF

This brief is being filed in response to the Final Rejection of July 27, 2005 in the above-referenced case.

# I. REAL PARTY IN INTEREST

The real party in interest is the Assignee of record, namely, iVoice.com, Inc.

Both inventors herein, namely, Kenneth P. Glynn and Jerome R. Mahoney, have assigned their full interest to the aforesaid assignee.

# II. RELATED APPEALS AND INTERFERENCES

There is a pending appeal in copending sister application 10/699,090 filed on October 30, 2003. Both that sister application and the instant application are continuations in part of the same parent application, namely, U. S. Patent Application No. 09/653,658 filed on August 31, 2000, and entitled "Voice Activated, Voice Responsive Item Locator", now issued as U. S Patent No. 6,813,341 B1.

# III. STATUS OF CLAIMS

The following is a list of all claims that have been presented throughout the history of this application, and the status of those claims:

CLAIMS	STATUS
1 through 20	Original claims, cancelled by Amendment.
21 through 40	Newly submitted by Amendment of May 4, 2005, Pending, under Final Rejection, these are the appealed claims.
	These are presented in Appendix A attached hereto.

# IV. STATUS OF AMENDMENT

No amendments were made after the Final Rejection. The Examiner objected to the last amendment made on May 4, 2005 before Final Rejection, but apparently entered the amendments for purposes of appeal, as the amended claims are the Final rejected claims.

# V. SUMMARY OF THE INVENTION

In conjunction herewith, Figures 1A and 2 are appended hereto as Appendix B. The invention is an item locator system having both voice activation and voice responsive capabilities for location feedback to locate one or more specific items (Page 27, line11 to page 28, line 11). It includes a plurality of sets of different items, each set having at least one item therein, each set having at least one item therein, each set having at least one item therein, each set having a specified location, and each set having its own unique item-identifying bar code, with at least one item of each set having said unique item-identifying bar code located thereon, (Page29, line12 to page 30, line 9), Figure 1A (2). There is a plurality of specified locations, each location having at least one of said plurality of sets of different items located thereon, each location of said plurality of locations having a unique location—identifying bar code, each of said plurality of locations having a said unique location-identifying bar code physically situated thereon, (Page 28, line 12 to page 29, line 11), Figure 1A (4).

There is also a support structure, for physically supporting said system at one or more locations, and functionally containing or connected to the following components:

- a.) a continuous speech recognition digital signal processor (DSP), (Page 35, line4 to line 9, page 45, line 10 to page 48, line 6) Figure 2 (audio controller 19, voice recognition unit 23, continuous speech recognizer 41, continuous speech interpreter 43, memory 25);
- b.) a programmable microprocessor, (Page 30, line 1 to page 31, line 7; page Figure 2 (27) interfaced with said speech recognition DSP;

- c.) sufficient programming and circuitry contained within said programmable microprocessor to provide for voice activation and voice recognition and response, and having item-identification/corresponding location-identification-identification data pairs obtained from said unique item-identifying bar codes and said unique location-identifying bar codes

  Figure 1A (6), so as to provide item location information to a user;
- f.) voice input means Figure 2 (21) connected to said speech recognition DSP; and,
- g.) memory storage means, Figure 2 (31) connected to said programmable microprocessor, Figure 2 (27) for storage of operational inputs, control inputs, voice recognition vocabulary for storage of command match and execute functions;
- at least one user feedback unit, Figure 2 (text to speech generation 29, audio controller 19, speaker user feedback unit 33), and connection from said programmable microprocessor to said at least one user feedback unit, said at least one user feedback unit adapted to provide feedback selected from the group consisting of audio feedback, visual feedback and combinations thereof, to a user in response to an item location query wherein said feedback is selected from the group consisting of an answer, default instructions and combinations thereof.

# VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The following substantive issues are raised in the Final Rejection and thus on this appeal:

# (a) Claim Rejections 35 USC 112, First Paragraph (Claims 24 and 25)

Whether claims 24 and 25 have enabling disclosure regarding genus/species sets support in the specification.

# (b) Claim Rejections 35 USC 112, First Paragraph (Claims 38 and 40)

Whether claims 38 and 40 have enabling disclosure in the specification regarding a secondary processor as specified.

# (c) Claim Rejections 35 USC 112, First Paragraph (Claims 37 and 39)

Whether claims 37 and 39 have enabling disclosure in the specification for a bar code reader to be connected wirelessly to a secondary processor.

# (d) Double Patenting

Whether under 35 U.S.C. §101, all of the claims are claiming the same invention as that of claims 1 through 20 of copending Application No. 10/699,090.

# (e) Claim Rejections – 35 U.S.C. §102

Whether Claims 21, 22, 24, 26, 27, 28, 30, 31, 32, 36, 37, 38 and 39 are, under 35 U.S.C. §102(e) anticipated by Burke et al. (U.S. Patent No. 6,604,681).

# (f) Claim Rejections – 35 U.S.C. §103 (a)-Burke et al.

Whether Claims 23 and 25 are unpatentable over Burke et al., as applied to claim 21 above.

# (g) Claim Rejections – 35 U.S.C. §103 (a)-Burke et al. in view of Miura (JP:356060959)

Whether Claim 29 is unpatentable over Burke et al., as applied to claim 21 above, in view of Miura(JP:356060959).

# (h) Claim Rejections - 35 U.S.C. §103 (a)-Burke et al. and Suzuki et al.

Whether Claims 33 and 40 are unpatentable over Burke et al., as applied to claim 21 above, in view of Suzuki et al. (US:2002/0149609).

# (i) Claim Rejections – 35 U.S.C. §103 (a)-Burke et al. and Engellenner et al.

Whether claim 34 is unpatentable over Burke et al., as applied to claim 21 above, in view of Engellenner et al.(5,786,764).

# (j) Claim Rejections – 35 U.S.C. §103 (a)-Baker et al. and Engellenner et al. and Stubley et al.

Whether claim 35 is unpatentable over Burke et al. in view of Engellenner et al. and Stubley et al.

#### VII. ARGUMENTS

# (a) Claim Rejections 35 USC 112, First Paragraph (Claims 24 and 25)

The Examiner states that the specification does not support these claims regarding bar codes including genus data and species data. The Examiner also states that aisle, row, bin, drawer and shelf data do not have a genus/species relationship.

In response, it is stated that on page 28, lines 5 through 7, the "system may reply either with voice or visual (words on a screen or a map) or both voice and visual, e.g. 'Aisle 3, Shelf 4'." Surely aisle and the specific shelf in that aisle constitute a genus/species data response.

On page 35, lines 1 to 3, the system "may present visually or visually or audibly and it may designate...a row and slot or space..." Clearly, in locating an automobile in a large lot or garage (page 34, line 12 through 14), the designation of a row and a slot, or of a row and space would be a genus/species relationship.

Further support is formed elsewhere in the specification and original claims 4 and 5. Note that claim 5 specifically identifies row on aisle data as genus data and fin, drawer or shelf data as species data. The amendment to page 39 submitted in Applicants Response of May 3, 2005 specifically insists the exact language of original claim 5 into the specification.

The Examiner has no basis for supplanting his own lexicography over the inventors and proclaiming that row or aisle data, and bin, drawer and shelf data are not genus/species related.

# (b) Claim Rejections 35 USC 112, First Paragraph (Claims 38 and 40)

The secondary processor, its functionality, and its connection wirelessly to a bar code reader were set forth in original claims 18, 19 and 20. This is not new matter. Revised Figure 2, as submitted on May 3, 2005, and the amendment to page 44 of the specifications submitted on May 3, 2005 clearly establish an enabling support in the specifications for claims 38 and 40.

# (c) Claim Rejections 35 USC 112, First Paragraph (Claims 37 and 39)

The secondary processor, its functionality, and its connection wirelessly to a bar code reader were set forth in original claims 18, 19 and 20. This is not new matter. Revised Figure 2, as submitted on May 3, 2005, and the amendment to page 44 of the specifications submitted on May 3, 2005 clearly establish an enabling support in the specifications for claims 37 and 39.

#### (d) Double Patenting

The Examiner provisionally rejected the claims under 35 U.S.C. §101, as claiming the same invention as that of claims 1 through 20 of copending Application No. 10/699,090. It is applicants' position that all of the claims in the present application are not claiming the same invention as in the cited application, but are claiming a different invention as that of claims 1 through 20 of copending Application No. 10/699,090. The inventions as claimed, are not the same and because the present invention is directed to product locator systems where the bar codes that are aisle-identifying are also aislesituating whereas in the cited co-pending patent application those bar codes are not aisle-

situated, but are product situated. Therefore, the claims are not the same but applicants concede that provisional obviousness rejection may be appropriate. A Terminal disclaimer will obviate this provisional rejection if otherwise patentable claims are found upon appeal.

# (e) Claim Rejections – 35 U.S.C. §102

Claims 21, 22, 24, 26, 27, 28, 30, 31, 32, 36, 37, 38 and 39 are rejected under 35 U.S.C. §102(e) anticipated by Burke et al. (U.S. Patent No. 6,604,681).

The Examiner states that, as to claims 21, 22, 24, 26, 27, and 38, Burke et al. teach an item locator system that provides item location information, and that item identifiers are entered via a bar code reader or a voice recognition device wherein item location information is retrieved from a database and are viewed on an LCD display.

With regard to claim 28, the Examiner states that Burke et al. teach audio communication. With regard to claim 30, the Examiner states that Burke et al. teach a telephone, and voice recognition, as well as must including a microphone.

With regard to claim 31 and 32, the Examiner stated that Figure 8 of Burke et al. teach these claims.

With regard to claim 36, 37 and 39, the Examiner states that column 6, line 33 of Burke et al. teach these claims.

In response, the Applicants respectfully submit that claim 21 of the present invention fails to be anticipated by the Burke et al. reference for the following reasons.

First, claim 21 includes a newly presented feature of feedback being an answer or default instruction. Second, claim 21 of the present invention system includes a continuous

speech recognition digital signal processor. This is one of the core developed products by the Assignee of record, and at the time this application was filed, this was not taught in the context of the present invention. This is a significant technological enhancement over previous systems and allows for a broad range of speech speeds, accents, slurs, etc. with far better recognition and accuracy than earlier systems.

Third, the Burke teachings involve complex systems with the need for a hand held device for every shopper, and the requirement of inputs of a store issued identification card for each shopper. This is contrary to the present invention as claimed where the system has a support structure that are fixed, i.e. at one or more locations (Specifically stated in claim 21). Additionally, Burke does not teach the specific arrangements, software programming, etc., that is, does not teach all of the components and their connective relationships as set forth in claim 21, paragraphs d), e), f), g), h) and i). Failing to even mention some of these components, much less show their interrelationships as set forth in the claim, renders a 35 USC 102 rejection unsupportable. Where is the claimed "continuous speech digital processor" in Burke? A "102" rejection requires it to be taught, but it is not anywhere in Burke. It isn't even obvious from the Burke teachings. Where is the claimed "memory storage means connected to the programmable microprocessor for storage of operational inputs, control inputs, voice recognition vocabulary for both command match and execution functions" in Burke? Nowhere, because Burke has separate storage for his data base, but does not even teach programmable control inputs, for example, so there can't be a storage for that in Burke. Likewise, there is no provision for default instructions nor combinations of answers to queries with default, as set forth in claim 21. It appears that six of the nine paragraphs of

claim 21 are totally lacking in Burke.

Furthermore, the present invention provides for secured access to updating manager inputs only when an access code is valid. The Applicants does not see how the Burke et al. disclosure provides for secured manual control input.

The Applicants respectfully submit that Burke et al. does not anticipate each of the above-identified features. Furthermore, no new matter has been added. Box 11 of Fig 1 includes the feedback features claimed. Furthermore, as stated above, the Burke et al. reference does not have any teaching on a speech recognition digital signal processor (DSP) of the present invention. This is a clear structural affirmative critical element of the present invention claims, and Burke is totally absent this critical feature. The Applicants believe that all the §102(e) rejections by the Examiner have been overcome and it is urged that the rejection be withdrawn. Further, because Burke is absent so many specific elements, it is urged that Burke does not render the present invention obvious. Thus, this rejection should be overturned

# (f) Claim Rejections – 35 U.S.C. §103 (a)-Burke et al.

Claims 23 and 25 are asserted to be obvious over Burke et al., as applied to claim 21 above. The Examiner stated that Burke et al. teach location information with the exception of row, bin, drawer and floor space. The Examiner took "Official Notice" that the specific location information is old and well known in to one skilled in the art, and would have been obvious to modify Burke et al. to include the specific location information. In response, the Applicants reiterate all the arguments with regard to Burke et al. regarding 35 USC 102 (e) herein above. Thus, the fundamental failure of Burke

applies here because these claims depend from claim 21. Also, we respectfully submit that the Examiner's implied teaching is not obvious because the Burke et al. system is specifically designed to include location information of aisle and shelf. There is no motivation to expand beyond this location since Burke et al. defines a database having aisle and shelf. Thus, this rejection should be overturned.

# (g) Claim Rejections – 35 U.S.C. §103 (a)-Burke et al. in view of Miura (JP:356060959)

Claim 29 is asserted to be unpatentable over Burke et al., as applied to claim 21 above, in view of Miura(JP:356060959). The Examiner states that Burke et al. teaches ROM, but fails to teach ROM storage including remote diagnostics and system programming. The Examiner further states that Miura teaches ROMs with system programming and for diagnostics. The Examiner postulated that it would have been obvious to modify Burke et al. to have the ROM storage provide remote diagnostics and system programming as taught by Miura.

In response, the Applicants reiterate all the arguments with regard to Burke et al. regarding 35 USC 102 (e) herein above. Thus, the fundamental failure of Burke applies here because these claims depend from claim 21. Additionally, the Applicants respectfully submit that the combination of Burke et al. and Miura is not obvious because there is no motivation to combine Burke et al. and Miura.

There is no teaching or suggestion in the Burke et al. disclosure that the Burke et al. system could interface with the diagnostic system of Miura, or vice versa. As stated in the Abstract of Miura, the modules must be connected to the processor. Burke et al. is lacking on a disclosure of system programming, not to mention diagnostic system

programming. Thus, the Applicants respectfully submit that there is no motivation to combine Burke et al. with Miura and that, in addition to the fundamental failure of Burke et al, and the fact that Miura does not overcome the shortcomings of Burke et al., these references cannot reasonably be combined for any purpose. Thus, this rejection should be overturned.

#### (h) Claim Rejections – 35 U.S.C. §103 (a)-Burke et al. and Suzuki et al.

Claims 33 and 40 are asserted to be unpatentable over Burke et al., as applied to claim 21 above, in view of Suzuki et al. (US:2002/0149609). The Examiner states that Burke et al. failed to teach digital-to-analog, but Suzuki et al. teach a PDA with a D/A converter. The Examiner postulated that it would have been obvious to modify Burke et al. to have the digital-to-analog as taught by Suzuki et al.

In response, the Applicants reiterate all the arguments with regard to Burke et al. regarding 35 USC 102 (e) herein above. Thus, the fundamental failure of Burke applies here because these claims depend from claim 21. Also, applicants respectfully submit that the combination of Baker et al. and Suzuki et al. is not appropriate and does not render the present invention obvious because audible feedback of Suzuki et al. emanates in response to video memory 70 (Fig. 3). In contrast to this, claim 33 of the present invention provides audio feedback in response to voice input. Thus, the Suzuki et al. program, not combinable with Burke et al and even if combined, is different from the present invention. Thus, this rejection should be overturned.

# (i) Claim Rejections – 35 U.S.C. §103 (a)-Burke et al. and Engellenner et al.

Claim 34 is asserted to be unpatentable over Burke et al., as applied to claim 21 above, in view of Engellenner et al.(5,786,764). The Examiner states that Burke et al. failed to teach a speech recognition engine. The Examiner further stated that Engellenner et al. teach speech processing means and likelihood processor. The Examiner postulated that it would have been obvious to modify Burke et al. to have the speech recognition engine as taught by Engellenner.

In response, the Applicants reiterate all the arguments with regard to Burke et al. regarding 35 USC 102 (e) herein above. Thus, the fundamental failure of Burke applies here because this claim depends from claim 21. Applicants respectfully submit that the combination of Burke et al. and Engellenner et al. does not render the rejected claim obvious for the following reasons. First, the Engellenner et al. reference supports a different system than the present invention supports. And second, the combination of Burke et al. with Engellenner et al. fails to establish a prima facie showing of obviousness because of lack of motivation.

First, the Engellenner et al. reference supports a different system than the present invention supports. The Engellenner art is directed to a voice activated electronic locating system. The items that are to be located are tagged and when an item is to be located a coded interrogation signal is transmitted to one or more interrogation regions in which the signal triggers a response for the item tag. A detector within the regions senses a response from the tag signal and the location of the item is reported based on the detector's signal. Thus, under the Engellenner system, there is no need for an item-location database. It would be useless in the context of the Engellenner treachings.

On the other hand, the present invention includes a database of manager inputs of item and location, as now recited in claim 21. When a user desires to find a location of an item, the desired item is spoken into the voice input means and the system retrieves the location associated with that item from the manager input item location database. This is different from sensing a signal from a tag on an item. Therefore, the Engellenner patent supports a different system from the present invention and should be removed as a reference.

And second, the combination of Burke et al. with Engellenner et al. fails to establish a prima facie showing of obviousness because of lack of motivation. As discussed in detail herein immediately above, the Engellenner et al. reference locates items by a signal received from an item physically tagged. Since the Burke et al. patent discloses an item information system in detail wherein a location of an item entered is relayed to a user through a hand held device, there is no need, nor suggestion, to utilize the speech recognition system of Engellenner et al.

# (j) <u>Claim Rejections – 35 U.S.C. §103 (a)-Baker et al. and Engellenner et al. and Stubley et al.</u>

Claim 35 is asserted to be unpatentable over Burke et al. in view of Engellenner et al. and Stubley et al. With regard to claim 35, the Examiner stated that Burke et al. in view of Engellenner et al. failed to teach utilizing tokens of raw acoustic signals. He stated that Stubley et al. teach each word in the vocabulary being represented by a string of HMM model, one for each phoneme in the word. He asserted that it would have been obvious to one skilled at the time the invention was made to modify Burke et al. in view of Engellenner et al. to have utilizing tokens of raw acoustic signals as taught by Stubley

et al.

In response, the Applicants reiterate all the arguments with regard to Burke et al. regarding 35 USC 102 (e) herein above. Thus, the fundamental failure of Burke applies here because this claim depend from claim 21. Applicants submit that the additional combination with Stubley et al. fails to establish a prima facie showing of obviousness for the following reasons.

First, the Stubley et al. disclosure does not overcome the limitations of the base references to Baker et al. and Engellenner et al. Stubley et al. relates to a module which makes observations to determine a likelihood of a match for speech received. The differences in the invention as set forth in claim 21, subparagraph (i) are not overcome by Stubley et al.

Second, there is no suggestion, teaching or need, expressed or implied, in either the Baker et al. patent, the Engellenner et al. patent or the Stubley et al. patent, to utilize the teachings of any of the others in each. The Baker et al. patent has no disclosure on a speech recognition processor. Thus, there is no suggestion to combine that disclosure with Engellenner et al. or Stubley et al. Furthermore, the Engellenner et al. disclosure has its own likelihood processor. Thus, there is no motivation or reason to substitute the tokens of raw acoustics signals of Stubley et al. in the Engellenner et al. system. Stubley et al is showing a different system for a different purpose with a different result and should not be combined, nor if it is, it does not teach or suggest obviousness for the present invention. It is urged that this rejection be overturned.

# VIII. CONCLUSION

In view of the above arguments and comments, the Applicants believe that claims 21 through 40 are allowable because none of the of the prior art, nor combinations cited by the Examiner, anticipate or are render the present invention obvious. Therefore, it is respectfully urged that the current rejections be overturned. An early and favorable reply is hereby solicited.

Thank you.

Respectfully submitted,

Date: 7 September 2006

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#### APPENDIX A

#### **CLAIMS**

Claims 1 through 20 (cancelled).

- 21. (new) An item locator system having both voice activation and voice responsive capabilities for location feedback to locate one or more specific items, which comprises:
  - a.) a plurality of sets of different items, each set having at least one item therein, each set having at least one item therein, each set having a specified location, and each set having its own unique item-identifying bar code, with at least one item of each set having said unique item-identifying bar code located thereon;
  - b.) a plurality of specified locations, each location having at least one of said
     plurality of sets of different items located thereon, each location of said
     plurality of locations having a unique location –identifying bar code, each
     of said plurality of locations having a said unique location-identifying bar
     code physically situated thereon;
    - c.) a support structure, for physically supporting said system at one or more locations, and functionally containing or connected to the following components:
    - d.) a continuous speech recognition digital signal processor (DSP);

- e.) a programmable microprocessor interfaced with said speech recognition DSP;
- f.) sufficient programming and circuitry contained within said programmable microprocessor to provide for voice activation and voice recognition and response, and having item-identification/corresponding location-identification-identification data pairs obtained from said unique item-identifying bar codes and said unique location-identifying bar codes, so as to provide item location information to a user;
- f.) voice input means connected to said speech recognition DSP; and,
- g.) memory storage means connected to said programmable microprocessor for storage of operational inputs, control inputs, voice recognition vocabulary for storage of command match and execute functions;
- i.) at least one user feedback unit and connection from said programmable microprocessor to said at least one user feedback unit, said at least one user feedback unit adapted to provide feedback selected from the group consisting of audio feedback, visual feedback and combinations thereof, to a user in response to an item location query wherein said feedback is selected from the group consisting of an answer, default instructions and combinations thereof.
- 22. (new ) The system of claim 21 wherein said unique item-identifying bar code is a universal price code.

- 23. (new) The system of claim 21 wherein unique item-identifying bar code is a bar code which corresponds to a location selected from the group consisting of aisle, row, shelf, bin, drawer and floor space area.
- 24. (new) The system of claim 21 wherein said unique item-identifying bar code is a bar code which includes code for genus data and for species data.
  - 25. (new) The system of claim 24 wherein said genus data is row or aisle data, and said species data is bin, drawer or shelf data.
  - 26. (new) The system of claim 21 which said programming includes software which is capable of receiving bar code reader inputs and converting said bar code reader inputs to item-identification/corresponding location-identification data pairs for location information.
  - 27. (new) The system of claim 21 wherein said user feedback unit includes visual display means for viewing visual feedback being selected from the group consisting of text, map and a combination thereof.
  - 28. (new) The system of claim 21 wherein said user feedback unit includes sufficient hardware and software to provide audio feedback to a user in response to recognizable

- 29. (new) The system of claim 21 wherein said memory storage means further includes flash ROM storage and provides for remote diagnostics and system programming..
- 30 .(new) The system of claim 21 wherein said voice input means includes a microphone.
- 31. (new) The system of claim 21 which further includes a secured manual control panel for input and management of item and location data into said system.
- 32. (new) The system of claim 31 wherein said manual control panel further contains a keypad and menu for operation and programming options, a microphone, a screen for input and feedback display.
- 33. (new) The system of claim 21 which additional components further includes an audio feedback component which includes audio feedback hardware and software adapter to audibly respond to recognizable voice input, including digital-to-analog conversion and an output speaker.
- 34. (new) The system of claim 21 wherein said DSP includes a continuous speech recognition engine having a continuous speech signal recognizer and a continuous speech signal interpreter.
- 35. (new) The system of claim 34 wherein said continuous speech recognition engine utilizes tokens of raw acoustic signals representing utterances or words and matches these

against a set of models and then relies upon likelihood to select a most likely model to decode signals for interpretation.

36. (new) The system of claim 21 which further includes at least one bar code reader connected to said microprocessor, and said connected is selected from being directly connected and being wirelessly connected to said microprocessor.

37. (new). The system of claim 36 which further includes at least one bar code reader connected to said microprocessor, and said connected is selected from being directly connected and being wirelessly connected to said microprocessor.

38. (new) The system of claim 21 which further includes a secondary processor being adapted to receive and translate bar code reader inputs thereto and having sufficient software to create item location information by matching item-identification bar code readings and corresponding location-identification bar code readings, and to communicate with said microprocessor.

39. (new) The system of claim 38 which further includes at least one bar code reader connected to said secondary processor, and said connected is selected from being directly connected and being wirelessly connected to said secondary.

40. (new) The system of claim 38 which said secondary processor is adapted to convert said item location information into continuous speech recognition digital signals.

# APPENDIX B

# **DRAWINGS**



ATTACH UNIQUE ITEM-IDENTIFYING BAR CODES TO
AT LEAST ONE OF EACH DIFFERENT ITEM FOR A
PLURALITY OF DIFFERENT ITEMS HAVING DIFFERENT
LOCATIONS, E.G. UNIVERSAL PRICE CODES

ATTACH UNIQUE LOCATION-IDENTIFYING BAR CODES
PHYSICALLY TO A PLURALITY OF DIFFERENT
LOCATIONS CONTAINING SAID PLURALITY OF
DIFFERENT ITEMS

READ ITEM-IDENTIFYING BAR CODES AND LOCATION-IDENTIFYING BAR CODES IN PRESET ORDERS TO CREATE PAIRS OF ITEM IDENTIFYING/CORRESPONDING LOCATION IDENTIFYING INFORMATION DATA TO DEVELOP ITEM/LOCATION VOCABULARY

INCLUDE IN

MANAGER INPUTS

(3) ON FIGURE 1B

UPDATE ABOVE
AS NEEDED

FIG. 1A

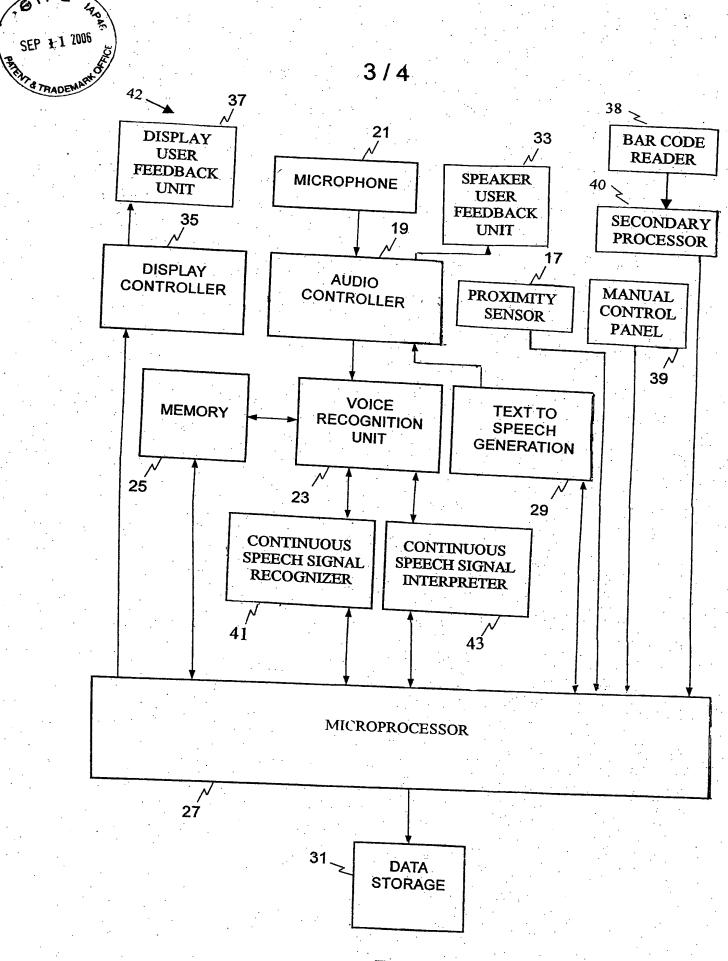


Fig. 2

# APPENDIX C

# **EVIDENCE**

None

# APPENDIX D RELATED PROCEEDINGS

None